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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) 0092/011001							
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Application Number 10/820,025	Filed April 8, 2004								
First Named Inventor Masaaki OYAMADA et al.									
Art Unit 1792	Examiner Tsoy Lightfoot, E.								
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <div style="display: flex; justify-content: space-between;"><div style="width: 45%;"><p>I am the</p><p><input type="checkbox"/> applicant/inventor.</p><p><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</p><p><input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>32548</u></p><p><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____</p></div><div style="width: 50%; text-align: center;"> _____ Signature Randolph A. Smith _____ Typed or printed name 202-530-5900 _____ Telephone number September 16, 2009 _____ Date</div></div> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below".</p>									
<p><input checked="" type="checkbox"/> *Total of <u>1</u> forms are submitted.</p>									

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Masaaki OYAMADA et al. Art Unit: 1792
Application No.: 10/820,025 Examiner: Tsoy Lightfoot, E.
Filing Date: April 8, 2004
Title : CONDUCTIVE ELECTROLESSLY PLATED POWDER AND
METHOD FOR MAKING SAME

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Sir:

In response to the final Office Action dated May 15, 2009, applicants respectfully request a pre-appeal brief for review of the pending rejections. This request is being filed with a Notice of Appeal.

Claims 3-5, 7, 9-10, 12, 14-15 and 20-22 were rejected under 35 USC 103(a) as being obvious over Kawakami et al. (JP 1-242782). Also, claims 3-5, 7, 9-10, 12, 14-15 and 20-22 were rejected under 35 USC 103(a) as being obvious over Kawakami et al. in view of Kaneyoshi (U.S. Patent Application Publication No. 2001-0055685). Also, claims 3-5, 7, 9-10, 12, 14-15 and 20-22 were rejected under 35 USC 103(a) as being obvious over Kawakami et al. or Kawakami et al. in view of Kaneyoshi and further in view of Svendsen et al. (U.S. Patent No. 5,262,718). Further, claims 3-5, 7, 9-10, 12, 14-15 and 20-22 were rejected under 35 USC 103(a) as being obvious over Kawakami et al. or Kawakami et al. in view of Kaneyoshi or over Kawakami et al. in view of Svendsen et al. or Kawakami et al. in view of Kaneyoshi, further in view of Svendsen et al., and further in view of Weber et al. (U.S. Patent No. 6,274,241). Further, claims 3-5, 7, 9-10, 12, 14-15 and 20-22 were rejected under 35 USC 103(a) as being obvious over the cited prior art as applied above and further in view of Segawa et al. (JP 2001-316834).

Applicants respectfully submit that the final rejection of claims 3-5, 7, 9-10, 12, 14-15 and 20-22 is improper for the following reasons. Specifically, 1) claim elements are clearly not present in the applied art and 2) they are not included in the Examiner's analysis and 3) no evidentiary basis for a 35 USC 103 motivation is provided in the rejections related to the missing elements. For purposes of these arguments, only independent claims 3 and 20 will be addressed.

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Applicants reserve their right to argue the patentability of the dependent claims on appeal and the arguments presented in applicants' previous submissions are hereby incorporated by reference.

The present invention relates to a conductive electroless plated powder and a method for making the same. In the nickel film formed on the surface of the core particle, crystal grain boundaries are not recognized in the cross section in the direction of the thickness of the nickel film as shown in Fig. 1 (see page 5, lines 11-15 of the specification). In the nickel film in which crystal grain boundaries are not recognized as shown in Fig. 1, unexpected results have been found which include that the adhesion between the nickel film and the surface of the core particle is remarkably high. The film becomes dense and homogeneous, resulting in an increase in adhesion between the nickel film and the surface of the core particle (see page 6, lines 1-9 of the specification).

The present invention discloses three main steps for performing electroless plating on a core particle to obtain grainless boundaries not previously known or obvious. The first step is a catalyzation step (I) that reduces the noble metal ions so that the surfaces of the core particles support the noble metal.

The present invention also discloses an initial thin film formation step (II) that adds a slurry, which includes the core particles prepared by the step of (I), to an aqueous medium comprising an initial thin-film-forming solution containing nickel ions, a reducing agent, and a complexing agent comprising an organic carboxylic acid or a salt thereof to prepare an aqueous suspension, dispersing the core particles in the initial thin film-forming solution, and reducing the nickel ions to form a nickel initial thin film on the surface of the core particles.

In the third step, the electroless plating step (III), a first solution, which contains a nickel ion-containing solution and the complexing agent, and a second solution, which contains a reducing agent-containing solution, are added to the aqueous suspension individually and simultaneously. The aqueous suspension contains the core particles having the initial thin film on the surface thereof so as

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to perform electroless plating and so that grainless boundaries are recognized in cross section in a direction of a thickness of the nickel film.

Specifically, independent claims 3 and 20 all recite the above described features, and these features are not shown or suggested by the cited art. Also, none of the cited references show, disclose or teach that any grainless boundaries are recognized in cross section in a direction of a thickness of the nickel film of the plated powder as shown in Fig. 1 of the present invention.

Since Kaneyoshi, Svendsen et al., Weber et al. and Segawa et al. are the secondary references in the rejections and these references do not show or suggest the presently claimed invention (and because of the page limit), for purposes of applicant's main arguments herein, only the rejections based on Kawakami et al. and Kawakami et al. in view of Svendsen et al. will be addressed in below.

Kawakami et al. disclose the step of adding at least two solutions constituting the electroless plating solution individually and simultaneously to the aqueous suspension to perform an electroless plating (see page 18, line 23 - page 19, line 6 of the translation).

Applicants respectfully submit that Experiment 1 of the Declaration under 37 CFR 1.132 filed on October 26, 2007 clearly proves that the grainless boundaries in a direction of a thickness of the nickel film are not formed on the surface of the core powder by using the method described in Kawakami et al. The method of Kawakami et al. produces only a nickel film of electroless nickel plated powder pieces that are randomly located thereon (as shown in Fig. 1 of the Declaration under 37 CFR 1.132 filed on October 26, 2007).

Applicants note that in the office action mailed on August 25, 2008, the Examiner admitted that Kawakami et al. failed to teach that one more plated nickel layer is applied over the plated nickel layer. However, the Examiner believed that it was a well-know principle to reapply a coating composition to achieve a desired thickness of a final coating depending on the intended use of the final coated product.

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Applicants respectfully submit that even if the method of Kawakami et al. was repeated to reapply a second nickel film layer over the applied nickel film layer in Kawakami et al., this process would not make any grainless boundaries in a direction of a thickness of the nickel film as claimed in the present invention because the same result of Experiment 1 of the Declaration under 37 CFR 1.132 filed on October 26, 2007 was repeated to reapply (or continue to grow) over the first nickel film layer. In other words, by repeating the method of Kawakami et al., the second nickel film layer was just random pieces of nickel powder that were over the random located first nickel powder particles.

On the other hand, the method of the present invention has the initial thin film formation step (the claimed step II) for uniformly and smoothly forming an initial thin nickel film, and the electroless plating step (the claimed step III) for performing electroless plating because the present invention intends to make grainless boundaries in a direction of a thickness of the nickel film (not controlling the desired thickness of the final coating as discussed by the Examiner).

Also, the present invention discloses that the complexing agent used in step (II) and the complexing agent used in step (III) are the same type of complexing agent. Applicants respectfully submit that the method of producing a conductive electroless plated powder described in the presently claimed invention is different from the method described in Kawakami et al.

Applicants also note that in the office action mailed on May 15, 2009, the Examiner believed that it would have been obvious to have reapplied a plated nickel layer in Kawakami et al. according to the method of Svendsen et al.

Applicants respectfully submit that as discussed above, even though the method of Kawakami et al. might be repeated to reapply a second nickel film layer over the applied nickel film layer in Kawakami et al., this reapplication would not make any grainless boundaries of nickel in a direction of a thickness of the nickel film as claimed in the present invention.

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In addition, applicants respectfully submit that the method of Kawakami et al. teaches away from the method discussed in Svendsen et al. because Kawakami et al. disclose that the thickness of the plating film can be controlled based on the amount of addition (see page 21, lines 11-13 of the translation). In other words, the method of Kawakami et al. adds the plating solution in the aqueous suspension only one time (not two times) and controls the exact thickness of the plating film based on adjusting the specific amount of addition that is added that one time.

On the other hand, Svendsen et al. disclose that the thickness of the metal layer inside the pores is enhanced by re-applying electroless plating to the membrane until the desired thickness has been reached (see col. 5, lines 55-57). Applicants respectfully submit that the method of Kawakami et al. teaches away from using the method discussed in Svendsen et al. because the desired thickness in Kawakami et al. is reached by adding the plating solution in the aqueous suspension only one time based on adjusting the amount of addition. Clearly, Kawakami et al. do not need to reapply electroless plating multiple times as discussed in Svendsen et al. to reach the desired thickness.

In view of arguments presented above, applicants respectfully submit that the Examiner has improperly combined Kawakami et al. with Svendsen et al. and the other cited references to reject independent claims 3 and 20. Also, applicants respectfully submit that the rejections made in the final office action are in error and therefore should be withdrawn.

Respectfully submitted,

Date: September 16, 2009


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